Filing Date: October 2, 2001
Title: METHOD AND SYSTEM OF TAPE AUTOMATED BONDING

## PENDING CLAIMS

1-6. (Cancelled)

a circuit board:

- 7. (Currently Amended) An electrical device comprising:
  - an IC chip connected to the circuit board by a TAB leadframe; and

an electrical component mounted on or above a surface of the IC chip and electrically connected to the IC chip wis by a lead on the TAB leadframe, the lead positioned along a surface of the TAB leadframe such that the lead which extends from a point which is within an inner portion of the leadframe outward toward an outer portion of the leadframe such that the lead extends from the electrical component to a perimeter I/O of the IC chip.

- 8. (Original) The electrical device of claim 7, wherein at least two electrical components are mounted on or above the surface of the IC chip and are each electrically connected to the IC chip via leads on the TAB leadframe which extend from each of the electrical components to perimeter I/Os of the IC chip.
- (Original) The electrical device of claim 7, wherein the electrical component includes a second IC chip.
- 10. (Original) The electrical device of claim 7, wherein the IC chip is adapted to monitor, regulate, and control delivery of electrical impulses to a heart and the electrical device is dimensioned to be implantable within a body.

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- 11. (Currently Amended) An electrical device comprising:
  - a circuit board:
  - an IC chip having a plurality of perimeter I/Os;
- a TAB leadframe connecting the IC chip to the circuit board, the TAB leadframe including a plurality of leads, a first area of the plurality of leads configured into a generally rectangular ILB portion which is dimensioned to directly connect one or more of the plurality of leads to the perimeter I/Os of the IC chip, a second area of the plurality of leads configured into an OLB portion for connecting one or more of the plurality of leads to the circuit board, wherein at least one of the plurality of leads is internally routed relative to extends within the ILB area so that the at least one lead has a first end located outside the ILB portion and a second end having a contact exposed interior to the ILB portion of the TAB structure and above a major surface of the IC chip; and

an electrical component mounted on or above the major surface of the IC chip and electrically connected to the IC chip via by the at least one lead which has a contact exposed interior to the ILB portion of the TAB structure and above a major surface of the IC chip.

- 12. (Original) The electrical device of claim 11, wherein the electrical component includes a second IC chip.
- 13. (Original) The electrical device of claim 11, wherein the IC chip is adapted to monitor, regulate, and control delivery of electrical impulses to a heart and the electrical device is dimensioned to be implantable within a body.
- 14-19. (Cancelled)
- 20. (Previously Presented) The electrical device of claim 7, wherein the TAB leadframe includes a flex tape.

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- 21. (Previously Presented) The electrical device of claim 7, wherein the TAB leadframe includes a conductive lead pattern including a plurality of leads configured to form an inner lead bond (ILB) area to connect to the one or more perimeter I/Os of the IC chip and an outer lead bond (OLB) area to connect to the circuit board.
- 22. (Previously Presented) The electrical device of claim 21, wherein at least one of the plurality of leads is internally routed relative to the ILB area so that the at least one lead has a contact exposed interior to the ILB portion of the TAB structure to connect to the electrical component.
- 23. (Previously Presented) The electrical device of claim 11, wherein at least two electrical components are mounted on or above the surface of the IC chip and are each electrically connected to the IC chip via leads on the TAB leadframe which extend from each of the electrical components to perimeter I/Os of the IC chip.
- 24. (Previously Presented) The electrical device of claim 11, wherein the OLB portion has a generally rectangular shape.
- 25. (Previously Presented) The electrical device of claim 11, wherein the TAB leadframe includes a flex tape.